

**SYSTEM AND METHOD FOR THE DYNAMIC  
IMPROVEMENT OF INTERNET BROWSER NAVIGABILITY**

**CROSS-REFERENCE TO RELATED APPLICATIONS**

- 5 This application is a continuation-in-part of Serial No. 09/373,815, filed 13 August 1999, titled "SYSTEM AND METHOD FOR THE DYNAMIC IMPROVEMENT OF INTERNET BROWSER APPEARANCE AND CONNECTIVITY", which is commonly assigned with the present invention, and the contents of which are hereby incorporated by reference.
- 10 A claim is hereby made to the earliest effective priority date to which this application is entitled.

**FIELD OF THE INVENTION**

- The invention relates to a method for dynamically improving the
- 15 appearance and performance of Internet browsers, and their connectivity to web sites.

**BACKGROUND OF THE INVENTION**

- 20 In the parent application mentioned above, there is disclosed an invention claiming a method and system by which the Internet Browser, and its standard "toolbar" in particular, is modified in appearance and function

through the addition to the standard browser toolbar a custom HotbarToolbar, which may comprise custom "skins" and/or certain custom HotbarToolbar Buttons (hereinafter sometimes referred to as "hotbuttons"); each hotbutton had a name or label, and the depression (clicking) of which  
5 caused a pop-up menu of selected website links to appear. In the previous application (the entire contents of which are hereby incorporated by reference), i.e., prior to the method and system according to the current invention, these hotbuttons, once "attached" to the HotbarToolbar, remained there, fixed and static in nature, with their identifying name or label  
10 remaining whatever it was chosen to be upon the creation and attachment of the button. Notably, the hotbuttons were essentially "static", in that they did not change when the browser navigated from one website to another.

## **SUMMARY OF THE INVENTION**

15 The HotbarToolbar comprises a plurality of categorized or related links, which in the presently preferred embodiment are organized under customized, newly and dynamically added toolbar buttons known as hotbuttons. The name and/ or content of the hotbuttons may change dynamically in accordance with various factors (including, but not limited  
20 to, changes in URL).

## **DETAILED DESCRIPTION OF PRESENTLY PREFERRED EMBODIMENTS**

In accordance with the method and system of the present invention, there  
5 are provided means for dynamically selecting one or more customized  
hotbuttons for incorporation into the HotbarToolbar, the selection of such  
will change during the use of the browser (as when one navigates from one  
site to another) and the choice of which may be made according to one or  
more of a variety of factors. Said means may, for example, be provided in  
10 the form of the client computer sending information which information may  
include, for example, its current location URL to the server, and receiving  
therefrom a list of the appropriate hotbuttons to be displayed on the Hotbar  
Toolbar. The appearance and/or the contents (e.g. links) of a hotbutton  
might change as a function of one or more factors, such as, for example:  
15 the subject of the current web page that the browser is viewing, the skin  
that is wrapped around the toolbar, the context and/or content of the current  
web page (including, but not limited to, products displayed on the current  
web page), desired advertisement, demographic information, geographic  
information, the behavior of the user, the interests of the user, as well as for  
20 other reasons which will be readily apparent to those of ordinary skill in the  
relevant art.

Reference is now made to FIG. 10, which shows a customized browser comprising the method and system according to the present invention. Note in FIG. 10 that the browser is shown located at the website www.yahoo.com - a site of general interest. Note in FIG 10 that, in accordance with the present invention, certain hotbuttons were chosen for incorporation into the HotbarToolbar; these hotbuttons are labeled "Directories", "Search Engines", "Shopping", "Chat", "Freebies" and "Communities". Note further the custom skin; in addition to all its other functions and purposes, its presence is a signal to the surfer that he or she is using a modified (enhanced) browser, and hence the custom skin works cooperatively and synergistically with the other elements of the method and system of the current invention, especially inasmuch as it alerts a user to the presence of the custom hotbuttons.

It is useful to next consider how the selection of hotbuttons changes when the browser is directed to another site. As is well known to those of ordinary skill in the art, entering a new URL, whether manually, via hyperlink, or otherwise will redirect the browser to that new URL. For example, if one enters http://games.yahoo.com into the address window, he or she will be redirected to that page, as depicted in FIG 11. In accordance with traditional browser operation, browsing to the new address: http://games.yahoo.com, has resulted in the display of new content, i.e., the

content of the web page located at that site - in this instance, content relating to games. Also, in accordance with the method and system of the present invention, browsing to the new address <http://games.yahoo.com> has resulted in the incorporation of new hotbuttons related to said address (e.g.

5 URL, content, etc.).

To better understand and appreciate the method and system according to the present invention, look more closely at FIG 11 and compare it to FIG 10.

Note that the labels on the hotbuttons have changed from what they were in  
10 FIG 10. Specifically, the hotbuttons labeled "Directories", "Search Engines", "Shopping", "Chat", "Freebies" and "Communities" which had been displayed in the browser located at [www.yahoo.com](http://www.yahoo.com) (see FIG. 10), have changed to different hotbuttons, labeled "Games", "Video Games", "Gambling", "Play Station", "Board Games" and "Toys" which are  
15 displayed in the browser located at <http://games.yahoo.com> (see FIG. 11).

Thus, it is readily seen that, in accordance with the method and system according to the present invention, the customized hotbuttons are not static, but dynamic, and change during the operation of the browser according to  
20 factors previously discussed. Clicking on a hotbutton may result in various actions; in this example, it yields a list of links related to that hotbutton label (topic). In the instance where one or more hotbuttons are related to a

specific product(s) displayed within the web page, the list of links yielded when clicking the hotbutton may also include comparative shopping information related to such product(s).

- 5 Note that the hotbuttons displayed on the HotbarToolbar are actually related to the topics, content (including, but not limited to, products) and/or appearance of what is displayed on the screen. This is an important aspect of the present invention. It should be understood that any one or more of a variety of techniques could be used to dynamically select the hotbuttons
- 10 displayed on the HotbarToolbar at any time. For example, the customized browser constituted and operated in accordance with the present invention might associate the URL to a pre-cataloged directory which defined related hotbutton topics; alternatively, or additionally, the present invention may analyze the content of the page displayed, and, upon finding certain
- 15 keywords, identify hotbuttons relevant to those keywords; alternatively, or additionally, the customized browser might analyze the IP address underlying the URL to which the customized browser has been directed, and infer therefrom certain demographic information and/ or geographic information and/ or other information which it might use in assigning the
- 20 relevant topics to the hotbuttons.

Consider next what happens when a surfer clicks on a hotbutton in this example, e.g. the hotbutton in FIG 12 that is labeled "PlayStation". FIG 12 shows the result of such a click - the emergence of a pop-up window (hereinafter sometimes referred to as a "Center") comprising links relating  
5 to the title, or topic of that hotbutton.

## **BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING**

10 FIG 10 is a screenshot of a customized browser comprising the method and system according to the present invention, showing the browser's appearance at [www.yahoo.com](http://www.yahoo.com).

FIG 11 is a screenshot of a customized browser comprising the method and  
15 system according to the present invention, showing the browser's appearance at <http://games.yahoo.com> with the new hotbuttons.

FIG 12 is a screenshot of a customized browser comprising the method and system according to the present invention, showing the browser's  
20 appearance at <http://games.yahoo.com> after the user has clicked on the Playstation hotbutton as illustrated therein.

FIG 13 is a screenshot of a customized browser comprising the method and system according to the present invention, showing that the user can click on the "Playstation Tours" button within the Playstation hotbutton pop-up.

5 FIG 14 is a screenshot of a customized browser comprising the method and system according to the present invention, showing that the tour will open in a frame at the bottom border of the screen and the user can step through the "picks of the day" (list of related links which are shown in the Playstation hotbutton pop-up as displayed in FIG 12) by clicking on the  
10 'Last Site' and 'Next Site' buttons

FIG 15 is a screenshot of a customized browser comprising the method and system according to the present invention, showing that the user is redirected to the next site in the list and can close the Tour by clicking on  
15 the X in the top-left corner of the Tour frame.

FIG 16 is a screenshot of a customized browser comprising the method and system according to the present invention, showing that the Tour frame has been closed.

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While embodiments of the invention have been described by way of illustration, it will be understood that the invention can be carried out by persons of ordinary skill in the art with many modifications, variations and adaptations, without departing from the scope of the claims and the legally

5 permissible equivalents thereof.